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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,706	04/17/2006	Alexander S. Harvey	47220.7	2501

22828 7590 08/27/2007
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CANADA

EXAMINER

LAZO, THOMAS E

ART UNIT	PAPER NUMBER
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3745

MAIL DATE	DELIVERY MODE
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08/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,706

Applicant(s)

HARVEY ET AL.

Examiner

Thomas E. Lazo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/11/05 7/13/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzzi (DE 3025563) in view of Smith (5,746,056). Suzzi discloses a wind turbine 2 with a rotor, a generator 4, a low-speed positive displacement hydraulic motor driven by the rotor to act as a hydraulic pump 8, a hydraulic transmission which is connected to and drives the generator 4 as a motor 9, a closed loop hydraulic oil circuit 13 for carrying pressurized oil to the transmission from the motor 9 and to return oil to the motor from the pump 8, a hot oil shuttle 25, wherein the hydraulic motor 8 is driven at the same rotational speed as the rotor, the rotor includes a horizontal axis wind turbine rotor, and the hydraulic motor 8, hydraulic transmission, closed loop oil circuit 13 and generator 4 are tower mounted. Suzzi does not disclose a variable displacement hydraulic transmission with means for varying the displacement of the transmission in response to variations in pressure within the oil circuit, wherein the displacement variation means includes a hydromechanical system including a pressure compensating valve operatively connected by means of servo control oil to a mechanical actuator.

Smith teaches for a prime mover driving a pump 13 and that there is a variable displacement hydraulic transmission with means for varying the displacement of the

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transmission in response to variations in pressure within the oil circuit, wherein the displacement variation means includes a hydromechanical system including a pressure compensating valve 56 operatively connected by means of servo control oil to a mechanical actuator 24 for the purposes of providing overspeed control of the transmission.

Since Suzzi and Smith both involve a hydraulic transmission and the applicant has admitted that overspeed control is a common problem with wind turbines, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the hydraulic transmission of Suzzi, based on the teachings of Smith, by using variable displacement hydraulic transmission with means for varying the displacement of the transmission in response to variations in pressure within the oil circuit, wherein the displacement variation means includes a hydromechanical system including a pressure compensating valve operatively connected by means of servo control oil to a mechanical actuator for the purposes of providing overspeed control of the transmission.

Regarding claims 7 and 8, Suzzi does not disclose that the generator is an asynchronous or synchronous generator.

Applicant has admitted that an asynchronous or synchronous generator is typical and therefore it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an asynchronous or synchronous generator for the generator of Suzzi.

Regarding claim 9, Suzzi does not disclose the rotor includes a vertical axis wind turbine rotor.

Since the applicant has not disclosed that having a vertical axis wind turbine rotor solves any stated problem or is for any particular purpose above the fact that harnesses wind power and it appears that the wind turbine rotor of Suzzi would perform equally well with a vertical axis wind turbine rotor as claimed by applicant, it would have been an obvious matter of engineering expedience to further modify the wind turbine of Suzzi by having a vertical axis wind turbine rotor as claimed for the purposes of harnessing wind power.

Allowable Subject Matter

Claims 6, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

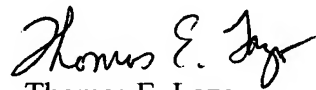
Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas E. Lazo
Primary Examiner
Art Unit 3745
August 22, 2007